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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,586	06/28/2000	YOSHIYASU KURAMOTO	20000917A	5172

7590 08/25/2004

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EXAMINER	
FLETCHER, JAMES A	

ART UNIT	PAPER NUMBER
2616	7

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/582,586	KURAMOTO ET AL.	
	Examiner	Art Unit	
	James A. Fletcher	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 28-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,16,18, 28-37,43, and 45* is/are rejected.

7)☒ Claim(s) *11-15, 17, 38-42, and 44* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Please include the new Art Unit 2616 in the caption or heading of any written or facsimile communication submitted after this Office Action because the examiner, who was assigned to Art Unit 2615, will be assigned to new Art Unit 2616. Your cooperation in this matter will assist in the timely processing of the submission and is appreciated by the Office.

Election/Restrictions

2. Claims 19-27 and 46-54 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 09 June 2004.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10, 16, 18, 28-37, 43, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Eerenberg et al (6,621,979).

Regarding claims 1 and 28, Eerenberg et al disclose a recording apparatus and method for digitally recording on a recording medium (Col 2, lines 14-15 "writing means for writing said composite information signal in a track on said record carrier"), a bit stream comprising a video signal and an audio signal which are coded utilizing the correlation between screens (Col 1, line 67 MPEG2 STD mode"), the apparatus comprising:

• normal play recording data generation means for generating used when normal reproduction performed, composed predetermined of a plurality of predetermined recording blocks (Col 6, lines

17-20 "In order to generate video trick play information based on the normal play video information, the pictures must be extracted from the normal play video stream");

• trick play recording data generation means for generating from the stream trick play recording data, used when reproduction at a speed different from that in normal reproduction [hereinafter referred to trick play] is performed , composed of a plurality of predetermined recording blocks by adding information outputted by packet generation means (Col 5, lines 41-42 "Two consecutive syncblocks will be used to store one transport stream packet" and lines 47-50 "A part of the system information is necessary to distinguish between normal play syncblocks... and trick play syncblocks");

• packet generation means for generating a time information packet representing time information for managing the time when a reproduced image is outputted and a control information for decoding the trick play recording data (Col 25, lines 7-9 "a header is attached to each compressed picture which carries information, such as... Presentation Time Stamp"), and outputting the packets to the trick play recording data generation means (Col 1, lines 9-11 "an apparatus for recording a digital video information signal and a corresponding tick play signal onto a record carrier"); and

• recording means for recording through a recording head the normal play recording data in a normal play area to be organized on the recording medium and the trick play recording data in a trick play area to be organized on the recording medium (Col 20, lines 62-63 "All these trick play speed have their own trick play areas on tape"), wherein

• the time information packet and the control information packet which are outputted from the packet generation means being respectively recorded at predetermined positions inside the trick play area recording data area (Col 25, lines 7-9 "a header is attached to each compressed picture which carries information, such as... Presentation Time Stamp" and Col 20, lines 62-63 "All these trick play speed have their own trick play areas on tape").

Regarding claims 2 and 29, Eerenberg et al disclose a recording apparatus and method, wherein the predetermined positions are provided on the recording medium in such a manner as to be arranged at least once within a predetermined interval in synchronization with the scanning of the recording head at the time of trick play at a predetermined number times the speed at the time of normal reproduction (Col 20, lines 59-63 "The example of the track select trick play system described above supports six different trick play speeds, +14, +I-12 and +/-24. All these trick play speed have their own trick play areas on tape").

Regarding claims 3-4 and 30-31, Eerenberg et al disclose a recording apparatus and method wherein the packet generation means generates the time information representing a time reference value within the predetermined time interval, and adds a predetermined fixed value corresponding to the predetermined position inside the trick play area at which the time information is recorded to the previous time information, to calculate the time reference value (Col 27, lines 1-5 "The distance in time between two succeeding transport stream packets that contain a PCR value, should be fixed. This means that the time which can be calculated with aid of the PCR value in the two PCR packets, and the time elapsed by the transmission should be equal").

Regarding claims 5-6 and 32-33, Eerenberg et al disclose a recording apparatus and method wherein:

• the time information for managing the time when a reproduced image is outputted is found from the time reference value to be the basis of the time information and the amount of trick play image data extracted from the bit stream to be inputted (Col 27, line 47 "For trick play, there is also a time stamp mechanism" and Col 27, lines 52-53 "the trick play stream is a fixed bitrate stream"), and

• the time information value is a value subsequent to the time reference value at which data representing the end of the trick play image data is outputted and normalized on the basis of a frame update period on an image display device for displaying the trick play image data (Col 27, lines 64-67

"The PCR values in the transport stream ...can be used to generate the time stamps required for trick play transport stream recording").

Regarding claims 7-8 and 34-35, Eerenberg et al disclose a recording apparatus and method wherein

• the time information to be added to the trick play image data is a time stamp value required to output, at the time of trick play, a trickily played stream at a time interval inputted at the time of recording (Col 27, line 47 "For trick play, there is also a time stamp mechanism" and Col 27, lines 52-53 "the trick play stream is a fixed bit-rate stream"), and

• the time stamp value is a fixed value which is synchronized with a recording track on the recording medium and corresponds to a trick play sync block number indicated in header information of each of the plurality of predetermined recording blocks composing the trick play recording data (Col 27, lines 64-67 "The PCR values in the transport stream ...can be used to generate the time stamps required for trick play transport stream recording").

Regarding claims 9-10 and 36-37, Eerenberg et al disclose a recording apparatus and method wherein

• control information required to decode the bit stream comprising the video signal and the audio signal which are coded utilizing the correlation between the screens represents an identification number for identifying the structure of the bit stream and the content of data composing the bit stream (Col 25, lines 7-10 "a header is attached to each compressed picture which carries information such as, Decoding Time Stamp [DTS], Presentation Time Stamp [PTS], DSM trick mode flag, etc.") and the control information for trick play recorded on the trick play area to be organized on the recording medium is information which depends on the control information included in the bit stream to be inputted and excludes the identification number relating to data which is not required to generate the trick play recording data [which is not extracted from the bit stream] (Col 20, lines 59-63 "The

example of the track select trick play system ...supports six different trick play speeds, +/4, +/-12 and +/-24. All these trick play speed have their own trick play areas on tape, which form a virtual channel that, during recording, will be filled with a video trick play transport stream").

Regarding claims 16 and 43, Eerenberg et al disclose a recording apparatus and method comprising, when the bit stream to be inputted is a bit stream conforming to an MPEG standard:

• header analysis means and step for analyzing a PES header included in the bit stream (Col 22, lines 64-67 "A distinction can be made3 between packets that contain video information, packets that contain video information and PES information, and packets that contain demultiplex information");

• DSM trick mode flag setting means and step for setting a DSM trick mode flag in a PES header indicating that the bit stream is trick play data to a predetermined value (Col 25, lines 7-10 "a header is attached to each compressed picture which carries information such as, Decoding Time Stamp [DTS], Presentation Time Stamp [PTS], DSM trick mode flag, etc.");

• trick mode field value insertion means for inserting, when the data is read out of the memory means, predetermined data representing trick play conditions into the trick mode field (Col 25, lines 7-10 "a header is attached to each compressed picture which carries information such as, Decoding Time Stamp [DTS], Presentation Time Stamp [PTS], DSM trick mode flag, etc.") and

• Eerenberg et al do not specifically disclose a memory means for storing the trick play data extracted from the bit stream.

The examiner notes that a memory for storing a trick mode field is inherent in a device capable of playing trick mode MPEG data. Such a memory is known to be required in order to derive the fields (P and B fields) that are derived from the I field.

• Eerenberg et al disclose a memory ensuring a 1-byte area for a trick mode field at a predetermined address (Col 25, lines 7-10 "a header is attached to each compressed picture which carries information, such as, Decoding Time Stamp... DSM trick mode flag, etc."), to insert the trick mode

field into a predetermined position of the trick play data, and previously ensuring the trick mode field at a predetermined position in the PES header of the bit stream (Col 28, line 58 "a fixed trick play transport stream mapping").

Regarding claims 18 and 45, Eerenberg et al disclose a recording apparatus wherein the bit stream comprising a video signal and an audio signal which are coded utilizing the correlation between screens is coded data by an MPEG system (Col 7, lines 31-32 "The process depicted ...can also be performed on MPEG pre-encoded video").

Allowable Subject Matter

5. Claims 11-15, 17, 38-42, and 44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 11-15, 17, 38-42, and 44, the prior art does not disclose, suggest, or teach a recording apparatus and method wherein the trick play recording data generation means and step stores the trick play image data extracted from the bit stream in order in one memory, reads out the trick play image data stored in the memory backward [in the same direction as the order stored] to generate trick play recording data for fast forward reproduction, and reads out trick play image data stored in the memory forward [in the direction reverse to the order stored] to generate trick play recording data for backward reproduction.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Fletcher whose telephone number is (703) 305-3464. The examiner can normally be reached on Mon. to Friday, 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Thai Tran can be reached on (703) 305-4725. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTQ